

CONNECTICUT RIVER BELOW HARTFORD

VICINITY OF ESSEX

CONNECTICUT

SURVEY

(REVIEW OF REPORTS)

U. S. ARMY ENGINEER DIVISION, NEW ENGLAND  
CORPS OF ENGINEERS  
WALTHAM, MASS.

December 19, 1961

U. S. ARMY ENGINEER DIVISION, NEW ENGLAND  
CORPS OF ENGINEERS  
424 Trapelo Road  
Waltham 54, Mass.

NEDGW

19 December 1961

SUBJECT: Survey (Review of Reports) Connecticut River below  
Hartford, Vicinity of Essex, Connecticut

TO: Chief of Engineers  
ATTN: ENGCGW-P  
Department of the Army  
Washington, D. C.

1. Syllabus. - The Division Engineer finds that the improvement of navigation facilities for recreational craft at and in the vicinity of Essex, Connecticut as desired by local interests, is warranted, and can be accomplished under the authority of Section 107 of the River and Harbor Act of 1960. On the basis of a report submitted 31 July 1961 to the Chief of Engineers, the improvement was duly authorized by the Chief of Engineers under the above cited authority by 1st indorsement dated 18 October 1961. No further improvement is desired or needed.

2. Authority. - This report is submitted in compliance with a resolution adopted 18 February 1959 by the Committee on Public Works of the United States Senate as follows:

"RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, that the Board of Engineers for Rivers and Harbors created under Section 3 of the River and Harbor Act, approved 13 June 1902, be and is hereby, requested to review the report, Connecticut River below Hartford, Conn. submitted in House Document No. 49, 73rd Congress, 1st Session with particular reference to the improvement of navigation facilities at and in the vicinity of Essex, Connecticut".

3. The Chief of Engineers by letter dated 27 February 1959 assigned a review report to the New England Division Engineer.

4. The report under review was submitted by the District Engineer, Providence, Rhode Island, on 26 September 1932. It recommended improvement of the Connecticut River from its mouth to Hartford, Connecticut. The recommended improvement consisted of a channel 300 feet wide and 15 feet deep to the Old Lyme

railroad bridge, thence generally 150 feet wide and 15 feet deep to Hartford. This report forms the basis for the existing project for the Connecticut River below Hartford.

5. Purpose and Description. - This study considered the engineering and economic justification of small boat navigation improvements in the Connecticut River at and in the vicinity of Essex, Connecticut, located at a sharp bend on the west side of the river about six miles north of the mouth at Old Saybrook. The Essex waterfront area consists of three shallow coves - North, Middle and South Coves - and two islands, Essex and Thatchbed, which almost close off entirely, the mouths of the coves from the main anchorage area in the outer roadstead just east of the coves. Depths throughout these coves vary generally from 1 to 3 feet. Depths in the 70-acre, trapezoidal shaped main anchorage, range from 6 to 11 feet in the southern portion and from 7 to 14 feet in the northern section. The immediate tributary Town of Essex (1960 population - 4,057) is well known as a summer resort and yachting center, has a well diversified group of small industrial and local retail firms, and has the most extensive marine facilities on the Connecticut River. There are no bridges across the anchorage or cove areas.

6. The existing project for improvement of the Connecticut River below Hartford, Connecticut, was adopted by Congress in 1872 and modified by Acts of Congress in 1881, 1911, 1919, 1935, 1945 and 1950. The project provides for:

a. A channel 15 feet deep, 300 feet wide from the mouth of the river to Lyme Railroad Bridge, thence 15 feet deep, generally 150 feet wide to Hartford. Length about 52 miles.

b. A channel 11 feet deep, 100 feet wide from deep water in the river to the anchorage in North Cove at Old Saybrook. Length about 1,900 feet.

c. Two anchorages 6 feet and 11 feet deep in North Cove at Old Saybrook.

d. Two riprap jetties at the mouth of the river.

e. The construction of dikes, training walls, revetments and accessory works.

f. A training dike about 3,700 feet long at Hartford.

g. A channel 8 feet deep and 75 feet wide in Eight Mile River from the Connecticut River to Hamburg and a turning basin of the same depth, 150 feet wide and 300 feet long at Hamburg and an anchorage area at Hamburg, 6 feet deep and about 6.5 acres in area.

h. A channel 6 feet deep, 60 feet wide and 1,200 feet long from the Connecticut River into Wethersfield Cove and a 30-acre anchorage in the cove, 6 feet deep.

7. The existing project is about 80% complete. Federal costs to 30 June 1961 were \$861,984 for new work and \$2,833,722 for maintainance. To complete the project there remains the construction of additional permanent works; dredging the channel and anchorage in North Cove, Old Saybrook; dredging the 6-foot anchorage in Eight Mile River at Hamburg; and dredging the channel and anchorage in Wethersfield Cove. With the exclusion of additional permanent works and the work in Eight Mile River which are considered to be inactive, the Federal cost to complete the project is estimated at \$713,500 (June 1961).

8. The Essex Shoal Channel, located midstream on the Essex-Lyme town line opposite the central Essex waterfront, was enlarged to its present project size as part of the 1935 modification of the Federal project for the Connecticut River below Hartford. There is no authorized Federal navigation improvement in the immediate Essex waterfront area.

9. Desired Improvements. - At a public hearing held at the Essex Town Hall on 23 February 1960, a harbor committee composed of local officials and yachting and commercial interests, proposed the following improvements in the interests of the recreational fleet:

a. Dredge an approach channel, 10 feet deep, from the existing 15-foot Federal channel near the Essex Reef Light, to and along the natural channel of the central Essex waterfront northward to North Cove and rejoining the main channel off Essex Island.

b. Dredge the anchorage between the existing 15-foot Federal channel and the natural waterfront channel to a depth of 10 feet.

10. Plan of Improvement and Project Formulation. - There is no significant commerce in the waterway directly serving the Essex Waterfront at present, and little or no commercial traffic is anticipated in the waterfront area. Therefore vessel traffic in the anchorage and cove areas is limited to recreational boating. The main navigation difficulties to this existing recreational fleet 509 boats and to the prospective fleet of 580 boats stem from shoaling which has occurred in the Connecticut River between the existing 15-foot mid-river Federal channel and the natural waterfront channel. Shoaling has also occurred in the natural waterfront channel, particularly at the southwestern end off Thatchbed Island.

11. A plan of improvement was selected which represents a logical development of the harbor in keeping with specific local desires, current and anticipated use of the harbor, and the maximum draft of boats expected to use the roadstead area. The plan of improvement would provide:

a. An approach channel 10 feet deep and generally 100 feet wide, which would extend northwesterly from the existing 15-foot Federal channel off Essex Reef to the entrance to Middle Cove, then continue northward about 150 feet off existing structures at the southern end of the central waterfront, and then return along the east side of Essex Island to the existing 15-foot Federal channel near the northern end of Essex Shoal;

b. An anchorage of about 15 acres, 10 feet deep, in the southern half of the area bounded by the two channels;

c. An anchorage of about 19 acres, 8 feet deep, in the northern half of the area bounded by the two channels.

12. The estimated first cost of construction is \$112,000 (June 1961). The net cost to the United States is \$56,000 for construction, \$7,000 for preauthorization studies, and \$4,000 for additional navigation aids. The project benefit-cost ratio is 1.7 to 1.0.

13. Coordination and Local Cooperation. - All Federal, State and local agencies having an interest in the improvement have been consulted concerning the effects of the proposed improvements on their activities. The Fish and Wildlife Service has stated that there would be no adverse effects to fish and wildlife resources provided the dredged spoil is placed on Nott Island or, if a limited quantity of fill is placed in the Essex Island area, efficient bulkheads are erected.

14. The State of Connecticut and the Town of Essex have approved the improvement plan. The Town has given assurances that the following requirements of local cooperation and participation would be met for construction of the project under authority of Section 107 of the River and Harbor Act of 1960.

a. Provide, without cost to the United States, all lands, easements, rights-of-way, and suitable spoil disposal areas, with all necessary retaining dikes, bulkheads, and embankments, needed for the construction and maintenance of the project when and as required;

b. Hold and save the United States free from damages that may result from construction and maintenance of the project;

c. Provide and maintain, without cost to the United States, an adequate public landing having berthing depth commensurate to the project depth;

d. Provide and maintain public access roads, parking areas, and other needed public use shore facilities;

e. Regulate the use, growth and free development of waterfront facilities, with the understanding that said facilities will be open to all on equal terms;

f. Make a cash contribution of 50 percent of the first cost of the Federal project construction, a contribution presently estimated at \$56,000.

15. Conclusions. - Local interests have accepted the improvements to provide (1) a channel 10 feet deep, generally 100 feet wide and about 4,400 feet long, and (2) a 34-acre anchorage with sections 8 and 10 feet deep, as shown on the accompanying maps, as meeting the present and prospective navigation needs in the vicinity of Essex. They have indicated a willingness and ability to meet the requirements of local cooperation.

16. Accordingly, the Chief of Engineers on 18 October 1961, under authority of Section 107 of the 1960 River and Harbor Act, approved for accomplishment the above mentioned navigation improvement for the Connecticut River below Hartford, Vicinity of Essex, Connecticut.

17. Recommendations. - The Division Engineer recommends that no further improvement of the Federal project for the Connecticut River below Hartford at and in the Vicinity of Essex, Connecticut, be made at this time.

SEYMOUR A. POTTER, JR.  
Brigadier General, USA  
Division Engineer

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1. Map
2. Additional Information  
called for by Senate  
Resolution 148

CONNECTICUT RIVER BELOW HARTFORD  
VICINITY OF ESSEX, CONNECTICUT

Information Called for by  
Senate Resolution 148, 85th Congress  
Adopted 28 January 1958

1. This study considered the economic justification of small boat navigation improvements to the Connecticut River below Hartford, at and in the vicinity of Essex, Connecticut, located at a sharp bend on the west side of the river about six miles north of the mouth at Old Saybrook.

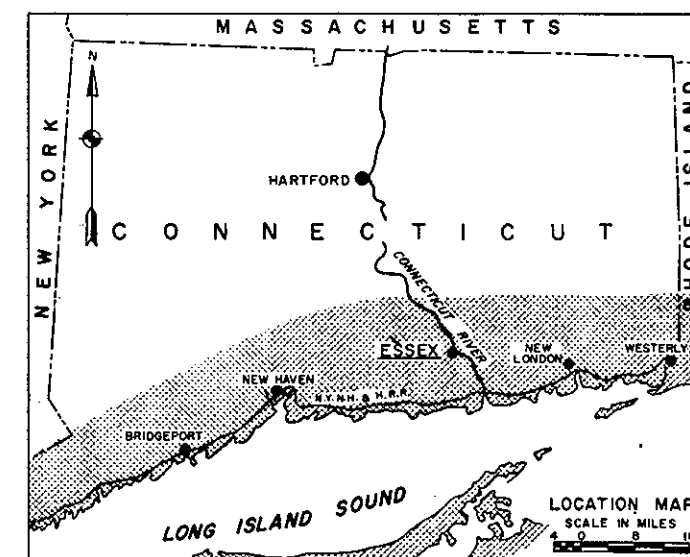
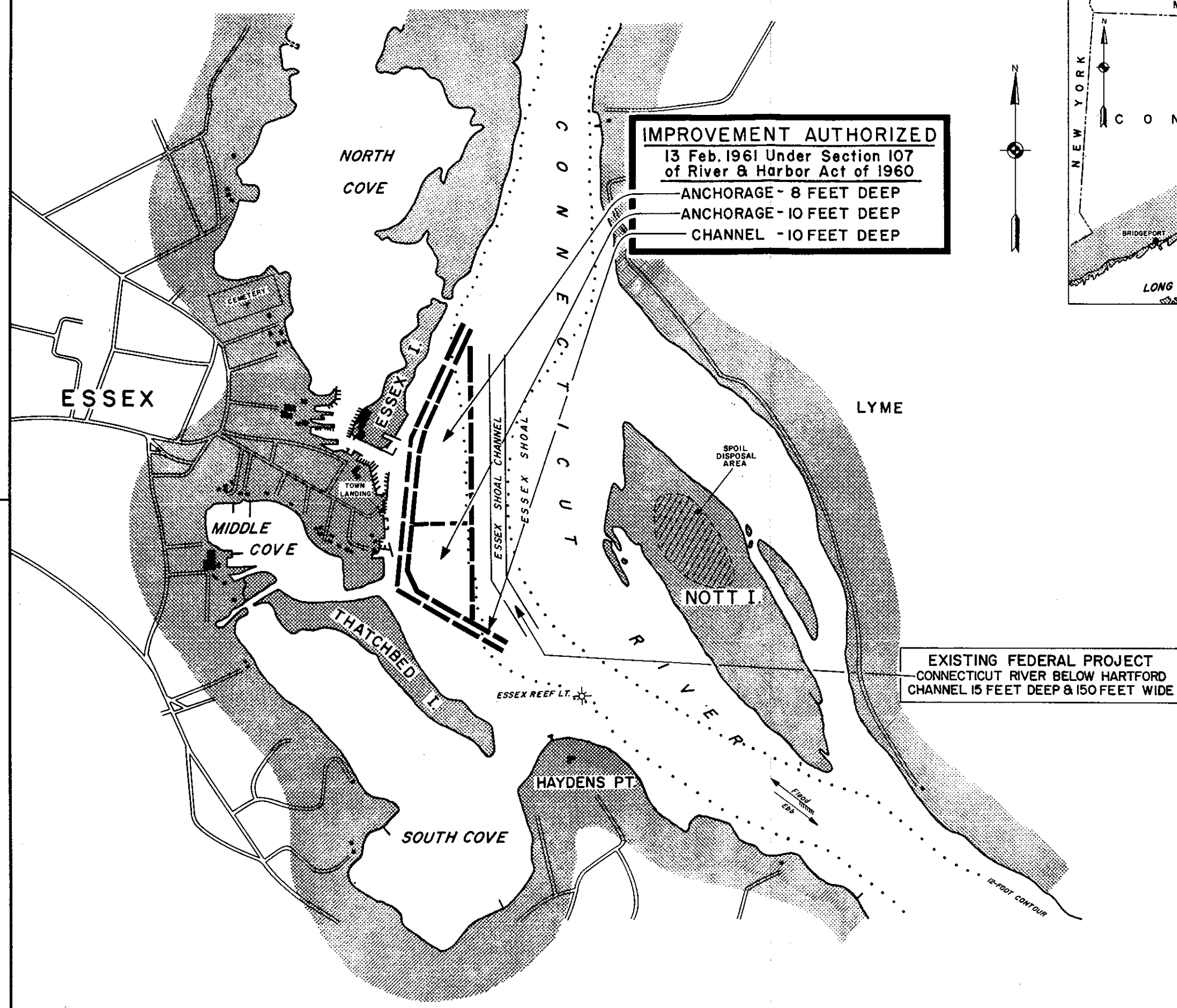
2. As a result of the study, the Chief of Engineers, under the authority of Section 107 of the 1960 River and Harbor Act, authorized on 18 October 1961 a navigation improvement for the Essex waterfront area providing for an approach channel 10 feet deep, generally 100 feet wide, and 4,400 feet long from the existing 15-foot Federal channel in the river to the central Essex waterfront and return, and for a 34-acre anchorage, 10 feet deep in the southern half and 8 feet deep in the northern half. The estimated first cost of construction is \$112,000. Net cost to the United States is \$56,000 for construction, \$7,000 for preauthorization studies, and \$4,000 for additional navigation aids. Local interests will be expected to make a cash contribution of \$56,000.

3. Alternate improvements to the above authorized project were considered which consisted of (1) variations in the length, areas and depths of the approach channel and adjacent anchorages, and (2) construction of marina facilities in Middle and North Coves. The improvement authorized was selected as a logical development of the harbor in keeping with specific local desires, current and anticipated use of the harbor, and the maximum draft of boats expected to use the roadstead area. Factors unfavorable to marina construction were: (a) the present vigorous rate of small pier development in all three coves indicated that facilities for small powerboats continue to be satisfactory, (b) the southwest side of North Cove is a good site but no sailboats and only a limited number of auxiliary boats would berth there, (c) the presence of a 3-knot current at the mouth of North Cove, (d) the ready access to the river provided by open anchorage in the roadstead, and (e) the cost of marina construction for 150 boats plus related dredging would be twice as much per boat as for an open anchorage.

4. Local interests have accepted this improvement as fulfilling their needs and desires in the interests of navigation and have been informed of the cash contribution and other requirements of local cooperation which must be met prior to construction of the project.

5. No further Federal navigation improvement beyond that authorized by the Chief of Engineers on 18 October 1961, as described above, is necessary at this time.





U.S. ARMY ENGINEER DIVISION, NEW ENGLAND CORPS OF ENGINEERS, WALTHAM, MASS.	
CONNECTICUT RIVER BELOW HARTFORD	
SHEET 1 OF 1	ESSEX, CONN. DEC. 1961
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APPROVED: <i>[Signature]</i> SUBMITTED: <i>[Signature]</i> CHIEF, PLANNING AND REPORTS BRANCH G.D. BAILEY PROJECT ENGINEER	TO ACCOMPANY SURVEY REPORT DATED: DEC. 19, 1961 FILE NO. CI-778